

AMENDMENTS TO THE SPECIFICATION

Please amend the specification as follows:

Please substitute the following amended paragraphs for the corresponding original paragraphs, the paragraph numbering corresponding to the numbering according to the printed publication:

[0007] According to the invention for this purpose there is provided a device for device for use in a milking parlour for automatically milking an animal using a milking robot, the device comprising a robot arm construction for automatically connecting a teat cup to a teat of the animal to be milked, the robot arm construction comprising: a first robot arm construction portion; a second robot arm construction portion; a first generally horizontal axis at which the first robot arm construction portion pivots; a second generally horizontal axis at which the second robot arm construction portion is pivotably connected to the first robot arm construction portion; a third robot arm construction portion for carrying a teat cup, the third robot arm construction portion being connected to the second robot arm construction portion for pivotable movement under the udder of the animal; and a first actuator having a first point of application on the first robot arm construction portion and having a second point of application located below the first generally horizontal axis and below the first point of application~~automatically milking an animal, such as a cow, comprising a milking parlour and a milking robot comprising a robot arm construction for automatically connecting a teat cup to a teat of an animal to be milked, which robot arm construction is provided with a robot arm for carrying a teat cup, which robot arm can be pivoted under the udder of the animal, above-described device comprises the features of the characterizing part of claim 1.~~

[0009] In an embodiment of a device according to the invention the robot arm construction comprises a first actuator having a first point of application on the first robot arm construction portion and having a second point of application on the fencing in a place at a first distance under the first horizontal axis. Furthermore the robot arm construction may comprises a second actuator having a first point of application on the second robot arm construction portion and having a second point of application on the fencing in a place at a second distance under the first horizontal axis, the second distance being less than the first distance. Due to this the third robot arm construction portion~~robot arm~~ can be moved in a highly accurate and stable manner.

[0012] For obtaining predominantly horizontal movement of the third robot arm construction portion~~robot arm~~ under the udder of an animal in the milking parlour it is advantageous if the first point of application on the second robot arm construction portion is located on the side of the second robot arm construction portion located opposite the fencing.

[0013] For obtaining accurate movement of the third robot arm construction portion~~robot arm~~ and for obtaining a stable robot arm construction it is advantageous if the first point of application on the first robot arm construction portion is located closer to the second horizontal axis than to the first horizontal axis. The first point of application on the first robot arm construction portion preferably faces the robot arm.

[0014] In an embodiment of a device according to the invention the robot arm construction is provided with a supporting unit that is movable along a rail that is preferably fastened to the fencing, which supporting unit is engaged by the first horizontal axis, the second horizontal axis, the second point of application of the first actuator and the second point of application of the second actuator. Due to this the third robot arm construction portion~~robot arm~~ can be moved in the longitudinal direction of the milking parlour for obtaining the correct position.

[0015] In order to counteract a rotating movement of the robot arm construction relative to the supporting unit it is advantageous if the supporting unit is movable along two rails that are disposed at different levels, preferably on the fencing of the milking parlour.

[0017] Although the robot arm construction may be operated with the aid of historical data, for the sake of accuracy of positioning of the third robot arm construction portion~~robot arm~~ it is advantageous if the device is provided with a position-determining device for determining the position of a teat of a cow, at least one actuator being controllable with the aid of data from the position-determining device. Of course historical data can also be used to control the actuator.

[0021] The device for automatically milking an animal, such as a cow, shown diagrammatically in a perspective view in Figure 1, comprises a milking parlour 1 that can accommodate one single animal, such as a cow. Said milking parlour 1 is surrounded in a

customary manner by a fencing 2 and is provided with an entrance and an exit door that are not further shown in the figures. In the milking parlour 1 or in the immediate vicinity thereof there is provided a milking robot comprising a robot arm construction 3 for automatically connecting a teat cup to a teat of an animal to be milked. The robot arm construction is provided with a ~~robot arm 4~~third robot arm construction portion 4 for carrying a teat cup, which robot arm is pivotable under the animal's udder.

[0022] The robot arm construction 3 is provided with a first robot arm construction portion 5 and a second robot arm construction portion 6. The first robot arm construction portion 5 is pivotably connected to an upper side of the fencing 2 by means of a first horizontal axis 7. The second robot arm construction portion 6 is pivotably connected to the first robot arm construction portion 5 by means of a second horizontal axis 8 that is located outside the milking parlour 1. The ~~robot arm 4~~third robot arm construction portion 4 is connected to the second robot arm construction portion 6. The robot arm may rigidly be connected to the second robot arm construction portion or be connected thereto via a third horizontal and/or a vertical axis or shaft, so that the robot arm is pivotable relative to the second robot arm construction portion for example by means of an actuator.

[0023] A first actuator 12 has a first point of application 13 on the first robot arm construction portion 5 and a second point of application 14 on the fencing 2 in a place at a first distance under the first horizontal axis 7. A second actuator 9 has a first point of application 10 on the second robot arm construction portion 6 and a second point of application 11 on the fencing 2 in a place at a second distance under the first horizontal axis 7, the second distance being less than the first distance. The first actuator 12 may be a single actuator or may be constituted by two actuators that are arranged on either side of the second actuator 9, as is apparent from Figure 1. The first point of application 10 on the second robot arm construction portion 6 is then located at least approximately half-way along the second robot arm construction portion 6. For obtaining an almost horizontal movement of the free end of the ~~robot arm 4~~third robot arm construction portion 4 the first point of application 10 on the second robot arm construction portion 6 is located on the side of the second robot arm construction portion 6 located opposite the fencing 2. The first point of application 13 on the first robot arm construction portion 5 is located closer to the second horizontal axis than to the first horizontal axis. For obtaining a relatively compact construction the first point of application 13 on the first robot arm construction portion faces the robot arm.

[0025] In the embodiment shown the device is provided with a position-determining device 22 known per se for determining the position of a teat of a cow. The position-determining device 22 is disposed near the end of the ~~robot arm 4~~third robot arm construction portion 4, but may alternatively be fastened in another place, for example on the fencing 2. At least one actuator, but preferably all the actuators, is controllable with the aid of data from the position-determining device 22, if desired through a computer.